

Title (en)
Two-shaft gas turbine system and related method of operation

Title (de)
Doppelwellen-Gasturbine und zugehöriges Betriebsverfahren

Title (fr)
Turbine à gaz à deux arbres et procédé de fonctionnement associé

Publication
EP 2228515 A2 20100915 (EN)

Application
EP 10153653 A 20100216

Priority
JP 2009057278 A 20090311

Abstract (en)
Disclosed herein is a highly-reliable two-shaft gas turbine system in which the rotational speed of a compressor 1 exceeds its rated rotational speed when the combustion temperature during rated operation is set to the rated combustion temperature of a simple-cycle gas turbine system and in which the drive force for the compressor 1 can be balanced with the output from a high-pressure turbine without turbine efficiency being compromised. When the rotational speed of a compressor 1 exceeds its rated rotational speed on the condition that the combustion temperature during rated operation is set to the rated combustion temperature of a simple-cycle gas turbine system, part of the working fluid that drives turbines is diverged from a flow path that guides the working fluid to gas paths and used as a coolant.

IPC 8 full level
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Citation (applicant)
• JP H0518271 A 19930126 - KAWASAKI HEAVY IND LTD
• WO 0025009 A1 20000504 - HITACHI LTD [JP], et al

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WO2013079294A1; CN110608099A; EP2476880A1; EP2597287A1; EP2808493A1; US9169777B2; WO2015088487A1

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EP 10153653 A 20100216; JP 2009057278 A 20090311; US 70813310 A 20100218